

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P345134

Luminaire Tested: **22CZ-20SE-L830-HRP-UNV-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P345134  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1905-313-3)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ-20SE-L830-HRP-UNV-CD1-U  
Description: CRUZE 2X2 WITH HRP LENS INSERT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1810.7 lumens  
Efficiency: N/A  
Efficacy: 105.3 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

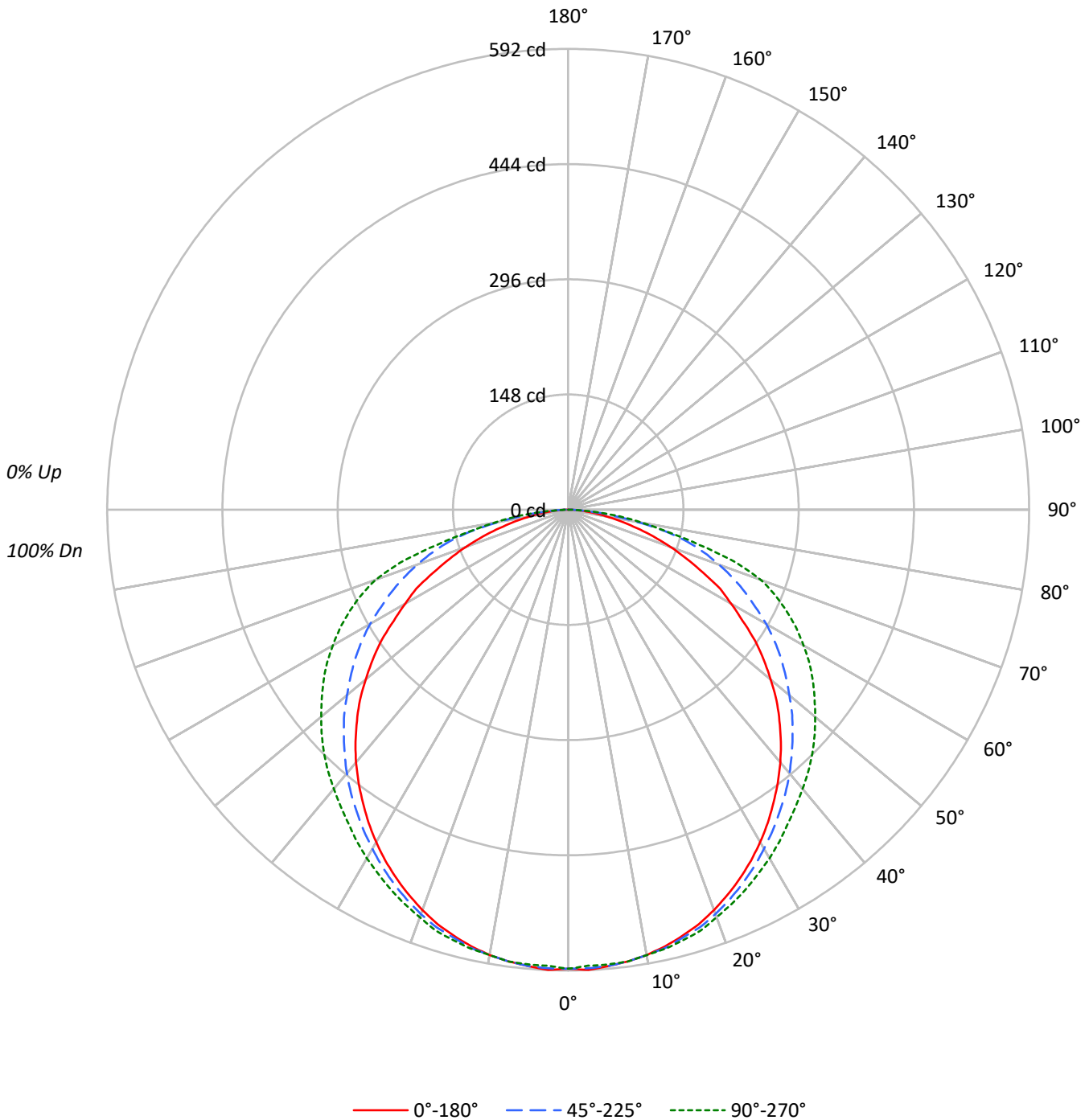
Input Watts (W): 17.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	74	70	68
3	89	78	69	63	86	76	68	62	73	67	61	71	65	60	68	63	59	57
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	32	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1587	1587	1587
5°	1590	1590	1584
10°	1587	1587	1587
15°	1579	1585	1594
20°	1567	1583	1595
25°	1551	1574	1599
30°	1532	1563	1606
35°	1509	1556	1617
40°	1489	1553	1645
45°	1460	1551	1687
50°	1420	1552	1733
55°	1373	1566	1800
60°	1301	1581	1878
65°	1215	1594	1974
70°	1100	1620	2072
75°	946	1645	1814
80°	773	1378	1495
85°	636	1003	1105



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.9	3.1
10°-20°	160.8	8.9
20°-30°	244.4	13.5
30°-40°	297.4	16.4
40°-50°	316.8	17.5
50°-60°	299.6	16.5
60°-70°	247.0	13.6
70°-80°	151.9	8.4
80°-90°	37.1	2.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	461.0	25.5
0°-40°	758.4	41.9
0°-60°	1374.8	75.9
0°-90°	1810.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1810.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	590	590	590	590	590	
5°	588	588	588	587	586	56
15°	567	568	569	571	572	160
25°	522	525	530	535	539	241
35°	460	464	474	486	492	288
45°	384	390	408	430	443	296
55°	293	304	334	366	384	260
65°	191	209	250	290	310	189
75°	91	116	158	172	174	98
85°	21	27	32	35	36	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	589.6	589.6	589.6	589.6	589.6
2.5°	591.8	590.7	589.6	587.4	586.4
5°	588.5	588.5	588.5	587.4	586.4
7.5°	585.3	585.3	585.3	585.3	585.3
10°	580.9	580.9	580.9	580.9	580.9
12.5°	574.4	575.5	576.6	576.6	577.7
15°	566.8	567.9	569.0	571.2	572.3
17.5°	558.2	559.3	562.5	564.7	566.8
20°	547.3	548.4	552.8	554.9	557.1
22.5°	535.4	537.6	541.9	546.2	548.4
25°	522.4	524.6	530.0	535.4	538.7
27.5°	508.3	510.5	517.0	524.6	527.8
30°	493.1	495.3	502.9	511.6	517.0
32.5°	476.9	480.1	488.8	499.6	505.1
35°	459.5	463.9	473.6	485.6	492.1
37.5°	442.2	446.5	458.5	472.5	480.1
40°	423.8	429.2	442.2	458.5	468.2
42.5°	404.3	410.8	424.9	444.4	456.3
45°	383.7	390.2	407.5	430.3	443.3
47.5°	363.1	370.7	390.2	415.1	429.2
50°	339.2	347.9	370.7	399.9	414.0
52.5°	316.5	327.3	352.2	383.7	398.8
55°	292.6	303.5	333.8	366.3	383.7
57.5°	265.5	278.5	314.3	349.0	367.4
60°	241.7	254.7	293.7	330.6	349.0
62.5°	220.0	231.9	271.0	311.1	330.6
65°	190.8	209.2	250.4	290.5	310.0
67.5°	164.7	185.3	228.7	266.6	288.3
70°	139.8	161.5	205.9	242.8	263.4
72.5°	114.9	138.7	183.2	215.7	226.5
75°	91.0	116.0	158.2	172.3	174.5
77.5°	69.4	94.3	127.9	126.8	129.0
80°	49.9	71.5	88.9	92.1	96.5
82.5°	33.6	49.9	57.4	62.9	67.2
85°	20.6	27.1	32.5	34.7	35.8
87.5°	9.8	10.8	10.8	8.7	8.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)